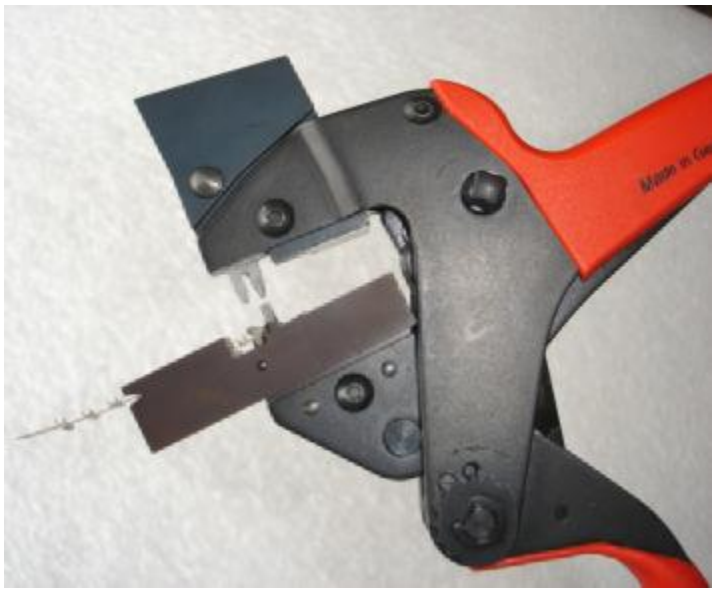
RCY21151

Manual Crimp Hand Tool
For Minitek Contacts AWG 26-30
User's Manual



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Föhrenbach®
Application Tooling

www.foehrenbach.be

1. Purpose

Crimping of Minitek AWG 26-30 contacts onto dedicated stranded wire.

2. Tool description

- Cat. No.: RCY21151
- Single head crimp tool. The tool crimps one contact per cycle.
- Short set-up times.
- Releasable ratchet ensures the complete crimping process.
- Ergonomically handles for comfortable working.
- Optimal force transmission ratio.
- The hand tool features a terminal guide that accepts Minitek contacts on a regular carrier strip. During each crimping cycle, the tool separates the contact in process from the carrier strip.

  The tool kit consists of:

  - The hand tool
  - This user's manual
  - A plastic protection case
  - Tool release key size 6 – 7 (DIN 895)

3. Selecting the wire size

Be sure that the tool is open. If not, close the handles until the ratchet releases. Further you must open the handles of the tool.

The crimper of this hand tool has two crimping areas. Each of which is applicable to a different range of wire. The crimping area can easily be selected by following the following procedure.

Unlock the set screw as shown in the picture.

Remove the rod.

The crimper has marks showing AWG size applicable each crimping area.

For the selection of the appropriate crimping area, please refer to the table.

Terminal P/N	Wire range AWG (mm²)	Wire barrel		Ins. Barrel		Crimp strength (kg)
		Width (mm)	Height (mm)	Width (mm)	Height (mm)	
77138-001	#26 -#28 (0.13–0.08)	1.0	0.60-0.65	1.5 MAX	1.4 MAX	1.2 MIN
	#28-#30 (0.08-0.05)		0.57-0.62			0.7 MIN

According to your application, position the crimper with the selected crimping area towards the anvil.

Position the rod with the flattened side behind the set screw.

Lock the set screw.

4. The process

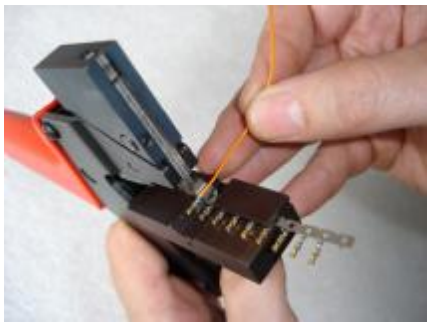
Be sure that the tool is open. If not, close the handles until the ratchet releases. Further you must open the handles of the tool.

Insert a strip of contacts (cut to the proper length) into the terminal guide of the tool.

Take care that the insulation crimp area of the contacts are properly positioned into the appropriate slot of the terminal guide.

Feed a terminal into the crimping area of the hand tool. Take care that the carrier strip of the terminals is guider in the slot of the cutter.

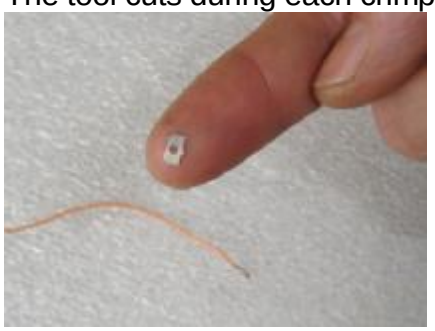
As shown on the picture, insert a stripped and straightened wire into the wire barrel of the terminal.
Make sure that the stripped length of the wire is in the range of 1.2 to 2.2 mm.
Be careful not to make cuts or nicks in the strands during the stripping operation.
The use of improperly prepared wire may cause insufficient crimp performance obtained.



Whilst keeping carefully the wire in position, close the handles until the ratchet releases.

Open the tool and take the crimped wire.

The tool cuts during each crimping cycle one part of the terminal carrier strip.

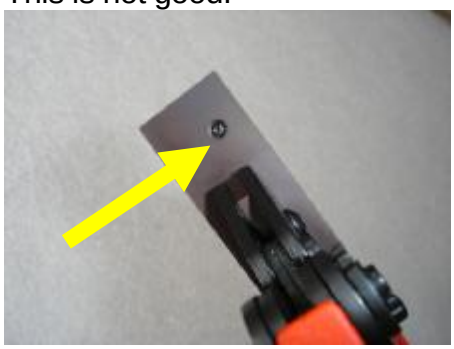


Before making the next crimp, feed terminal by one pitch.

5. Adjustments

- The tool is adjusted by Föhrenbach Application Tooling engineers. In order to maintain the performance of the tool, don't carry out any adjustments.

- During the life time of the tool, it could be possible that the 'index' position of the contacts has to be adjusted. A spring loaded device is gripping into the feeding holes of the contact strip. As such, you get a feed back (feeling) if the contact is slide in position. Turning the screw counter clock wise will reduce the feeling. Turning the screw too much clock wise, will block the contact strip. This is not good!



- For any support, please contact Föhrenbach Application Tooling:

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6. General specifications

- Colour : Black metal with red levers.
- Weight : 1,3 kg
- Size (protective box) : l: 265 mm x w: 230 mm x h: 53 mm

7. Input material and functional requirements

7.1. Wire

- Stranded wire dedicated for the mentioned contacts. AWG 26-30 (0.13 – 0.05 mm^2).

7.2. Components

- Minitek contacts type 77138-001.

8. Process output

- Due to the manual process, the output capacity is highly depended on the skills of the operator.

9. Safety and ergonomics

- Apply the tool only for the target as mentioned in chapter 1. Purpose.
- For operator safety, it's necessary to apply eye protection.
- Apply the tool only in a dry and clean environment.
- Apply the tool only in a well lighted environment (1000 Lux).
- Only skilful operators who are trained by Föhrenbach Application Tooling engineers are allowed to apply the tool.

- In normal operation, the hand tool can only be opened after a complete closing cycle. In order to open the tool before completing the entire crimp cycle, turn the release handle, by means of the release key (DIN 895), in the clock wise direction.

10. Environmental conditions

10.1. Ambient temperature

The ambient temperature is measured at a height of 1.5 m above the floor.

a.	Normal range	: + 15 to +30°C
b.	Average value	: ± 23°C
c.	Maximum variation within a 5 min. period	: ± 5°C

10.2. Humidity

a.	Normal range (no condensation)	: 40 to 70% R.H.
b.	Range not resulting in constantly reduced operation	: 10 to 90% R.H.

10.3. Atmospheric pressure

Normal range: 533 - 1060 m bar.

11. Power connections

11.1. Electrical

No electrical supply required.

11.2. Pneumatic

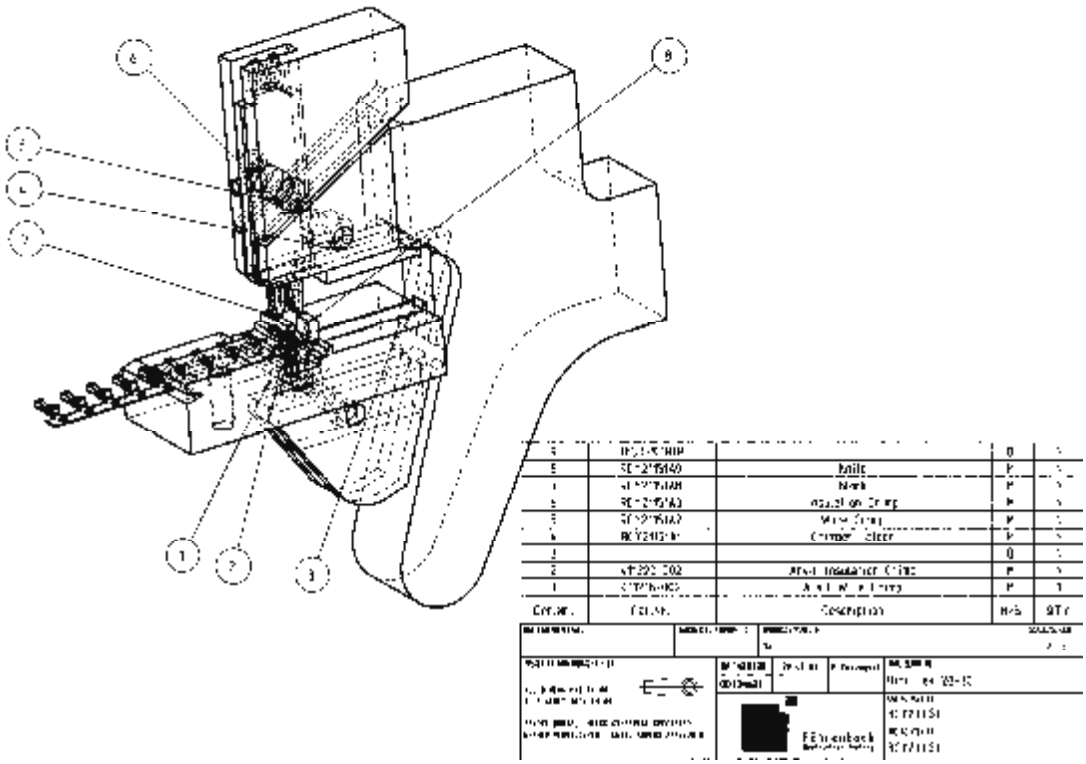
No air supply required.

12. Warranty

Please refer to our Terms and Conditions of Sale.

13. Spare parts

- wire crimp : RCY21151A2
- insulation crimp : RCY21151A3
- anvil wire crimp : 411218
- anvil insulation crimp : 411220



Appendix A: Crimp conditions

The wire specified by UL-1007 (AWG # 26-#30) or equivalent wires shall be crimped in accordance with the following conditions.

Terminal P/N	Wire range AWG (mm²)	Wire barrel		Ins. Barrel		Crimp strength (kg)
		Width (mm)	Height (mm)	Width (mm)	Height (mm)	
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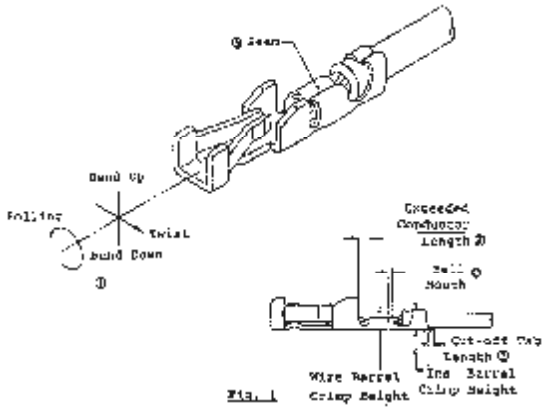

No.	Item	Requirement
1	Bend up	3° MAX
	Bend down	3° MAX
	Twist	3° MAX
	Rolling	8° MAX
2	Bell mouth	0.1 – 0.4 mm
3	Cut off tab length	0 – 0.3 mm
4	Exceeded conductor length	0 – 0.8 mm
5	Seam	No evidence of seam opening. No strands exist out of wire barrel.
	Wire strip length (REF.)	1.2 - 2.2mm

Appendix B:

In order to apply the mentioned Minitek contacts, Föhrenbach Application Tooling provides also mini-applicators and other dedicated semi-automatic equipment.

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